

Customer No.: 31561
Application No.: 10/708,805
Docket No.: 12264-US-PA

REMARKS

This is a full and timely response to the outstanding non-final Office Action mailed on March 6, 2006. Applicant submits that a typing informality as set forth in claims 7 has been corrected as instructed by the Examiner. Claims 1, 12 and 13 have also been amended for correcting some other typing informalities. Support for changes can be found in FIG. 3. The other claims remain unchanged. Reconsideration and allowance of the presently pending claims 1-15 are respectfully requested.

Claim Objection

Claim 7 is objected because of a typing informality presented therein. In response to the objection, Applicants hereby submit that claim 7 has been amended in which such informality has been corrected. As such, claim 7 is in its proper form for allowance.

Claim Rejection – 35 U.S.C. §112

Claim 12 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In response to the rejection, Applicants hereby submit that claims 12 and 13 have

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been amended to have 35 U.S.C. 112, second paragraph satisfied. As such, claims 12 and 13 are in proper form for allowance.

Claim Rejections – 35 U.S.C. § 102

Claim 1 is rejected under 35 U.S.C. 102(e) as being anticipated by Lendaro US 20040036808 (Lendaro hereinafter).

In response to the rejection thereto, Applicants hereby respectfully traverses this rejection. As such, Applicants submit that claim 1 is novel and nonobvious over Lendaro, or any of the other cited references, taken alone or in combination, and should be allowed.

Claim 1 recites in part:

A system for accessing a plurality of devices using a single bus, comprising:

... a control apparatus coupled to the shared bus so that the bus isolator isolates the second device from the shared bus when the control apparatus needs to access the first device and the bus isolator connects the second device with the shared bus when the control apparatus needs to access the second device (Emphasis added).

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Lendaro fails to teach, disclose or suggest "each and every element as set forth in the claim" (MPEP §2131). More particularly, Lendaro fails to teach, disclose or suggest that switch 50 isolates auxiliary ICs 52-58 from the shared bus **when main micro 42 needs to access other ICs 44 or other I²C buses/branches 46 or other I²C devices 48.**

Therefore, the system for accessing a plurality of devices using a single bus, as set forth in claim 1, is patentably distinguishable over and is not anticipated by Lendaro. Applicants submit that claim 1 is novel and non-obvious over Lendaro, or any of the other cited references, taken alone or in combination, and should be allowed (MPEP§2131).

Claim Rejections – 35 U.S.C. § 103

The Office Action rejected claims 2, 3, 7 and 8 under 35 U.S.C. 103(a) as being unpatentable over Lendaro in view of Matsuoka 6,009,492 (Matsuoka hereinafter).

In response to the rejection to claims 2, 3, 7 and 8 under 35 U.S.C. 103(a) as being unpatentable over Lendaro in view of Matsuoka, Applicants hereby respectfully traverse this rejection. As such, Applicant submits that claims 2, 3, 7 and 8 are allowable.

Claim 2 recites:

The system of claim 1, wherein the control apparatus further comprises:

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a bus exchanger, coupled to the shared bus for switching the authority for the shared bus between different devices; and

a bus arbitrator, coupled to the bus exchanger so that the bus arbitrator controls the bus exchanger to connect the shared bus with a circuit internally linked to the first device when the control apparatus needs to access the first device and the bus arbitrator controls the bus exchanger to connect the shared bus with a circuit internally linked to the second device when the control apparatus needs to access the second device.

Applicants submit that the bus exchanger and the bus arbitrator as set forth in claims 2, 3, 7 and 8 are neither taught, disclosed, nor suggested by Lendaro and Matsuoka, or any of the other cited references, taken alone or in combination.

First of all, Applicants submit that claim 2 depends on allowable claim 1 and comprises all limitations of claim 1. Since Matsuoka fails to teach, disclose or suggest "the bus isolator isolates the second device from the shared bus when the control apparatus needs to access the first device" as recited in claim 1, the combination of Lendaro and Matsuoka does not render claim 2 obvious. Therefore claim 2 should also be allowable.

Furthermore, the Office Action states that Lendaro fails to teach a bus exchanger and a bus arbitrator within the control apparatus as set forth in claim 2, and Matsuoka teaches the bus

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exchanger and the bus arbitrator. Applicants respectfully disagree, since Matsuoka also fails to teach the bus exchanger and the bus arbitrator.

The Office Action states "Matsuoka teaches a control apparatus (Fig. 1 and 2, item 3) ... by realizing a bus exchanger/switch (Fig. 2, items 20A and 20B)" and "(I/O controller 3 as a whole serves as the bus arbitrator)" According to the Office Action, the I/O controller 3 in Matsuoka is equivalent to both the control apparatus and the bus arbitrator in claim 2, and the switching circuits 20A and 20B in Matsuoka are equivalent to the bus exchanger in claim 2. However, according to claim 2, the control apparatus comprises the bus exchanger and the bus arbitrator. The control apparatus is more than the bus arbitrator. Therefore the I/O controller 3 in Matsuoka cannot be equivalent to both the control apparatus and the bus arbitrator. Such statement in the Office Action is self-contradictory. Moreover, according to claim 2, the bus exchanger and the bus arbitrator are both included within the control apparatus. No one of the bus exchanger and the bus arbitrator includes the other one. On the other hand, the I/O controller 3 in Matsuoka includes the switching circuits 20A and 20B. That is equivalent to the bus arbitrator including the bus exchanger and is inconsistent with claim 2. Based on the reasons above, Applicants respectfully submit that the statement in the Office Action has no merits. Claim 2 is novel and non-obvious over Lendaro and Matsuoka, or any of the other cited references, taken alone or in combination, and should be allowed.

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Based on the reasons above for claim 2, claims 3, 7 and 8 are also allowable.

Claims 4-6 and 9-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lendaro in view of Matsuoka as applied to claims 1, 2 and 7 and further in view of Bender et al. 5,519,851 (Bender hereinafter). Applicants respectfully disagree.

Each of claims 4-6 depends on allowable claim 1 and comprises all limitations of claim 1. Since Matsuoka and Bender fail to teach, disclose or suggest "the bus isolator isolates the second device from the shared bus when the control apparatus needs to access the first device" as recited in claim 1, the combination of Lendaro, Matsuoka and Bender does not render claim 4-6 obvious. Therefore claims 4-6 are also allowable.

Each of claims 9-11 depends on allowable claim 7 and comprises all limitations of claim 7. Based on the reasons for claim 7 above, since Bender fails to teach, disclose or suggest the bus exchanger and the bus arbitrator as recited in claim 7, the combination of Lendaro, Matsuoka and Bender does not render claim 9-11 obvious. Therefore claims 9-11 are also allowable.

Claim 12 recites in part:

A system for accessing a plurality of devices through a single bus, comprising:

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... a control apparatus coupled to the shared bus such that the control apparatus controls the shared bus to connect with a circuit internally linked to the memory unit when the control apparatus needs to access the memory unit and the control apparatus controls the shared bus to connect with a circuit internally linked to the memory card compatible device when the control apparatus needs to access the memory card compatible device.

Based on reasons similar to those for claims 1, Lendaro, even combined with Matsuoka and Bender, does not teach, disclose or suggest "the control apparatus controls the shared bus to connect with a circuit internally linked to the memory unit **when the control apparatus needs to access the memory unit**" as recited in claim 12 (Emphasis added). Therefore, Applicants submit that claim 12, as currently amended, is novel and non-obvious over Lendaro, Matsuoka and Bender, or any of the other cited references, taken alone or in combination, and thus should be allowable.

Applicants submit that claims 13-15 depend on allowable claim 12, and thus should also be allowable as a matter of law.

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CONCLUSION

For at least the foregoing reasons, it is believed that the pending claims 1-15 are in proper condition for allowance and an action to such effect is earnestly solicited. If the Examiner believes that a telephone conference would expedite the examination of the above-identified patent application, the Examiner is invited to call the undersigned.

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Respectfully submitted,

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